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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/547,191 04/11/00 NORI

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TM02/0907
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EXAMINER

COLBERT, E

ART UNIT

PAPER NUMBER

2172

DATE MAILED:

09/07/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/547,191

Applicant(s)

NORI ET AL.

Examiner

Ella Colbert

Art Unit

2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Claims 1-24 and newly added claim 25 are presented for examination. Claims 7, 19, and 24 have been amended in this communication filed 06/17/01, entered as Preliminary Amendment C, paper no. 18.
2. Applicants' Amendment B filed 05/21/01 has been entered as paper no. 9.
3. Applicants' Request for a CPA filed 06/19/01 has been entered as paper no. 11.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The amendment filed 06/11/01 is objected to under 35 U.S.C. 132 because it introduces new matter into the Specification. 35 U.S.C. states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: In claim 7, lines 3 and 5, claim 19, lines 6 and 9, and claim 24, lines 5 and 7, Applicants' Specification does not show, suggest or teach "plurality of cells" or "includes a cell."

Applicants' are required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kroenke et al (US 5,809,297), hereafter Kroenke.

With respect to claim 1, reading data from one or more rows of the set of one or more tables, (col. 28, lines 44-60 and col. 32, lines 21-27), generating an object id based on values from one or more rows, (col. 6, lines 13-65, col. 28, lines 61-67, col. 29, lines 1-11, and figures 1, 2, and 3) and presenting data from one or more rows as an object having an object id (col. 29, lines 12-30). Kroenke did not explicitly teach, rows of the set of one or more tables or generating an object id based on values from the one or more rows, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have one or more rows and to generate an object id and to incorporate in Kroenke because such a modification would allow Kroenke's system to have a relational database consisting of tables of rows and columns defining a relationship between things in each row including one or more object attributes employed by users for identifying object instances.

With respect to claim 2, generating an object id based on values from one or more rows of a relational table that belongs to the set of one or more tables (col. 29, lines 12-45).

With respect to claim 3, the step of generating a reference to the object based on the object id (col. 29, lines 46-67 and col. 30, lines 1-5).

With respect to claim 4, Kroenke did not explicitly teach, the step of accessing the object based on the reference generated for the object, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate in Kroenke because such a modification would allow generation of the object based on a reference because objects have unique identifiers depending on how the users view their data.

With respect to claim 5, receiving a request to define a view (col. 4, lines 29-54), the request specifying one or more columns of the set of tables containing values used to generate the object id (col. 29, lines 12-30), in response to receiving the request to define the view, storing specification data that specifies one or more columns (col. 30, lines 6-19), and the step of generating an object id based on values from the one or more rows includes determining how to generate the object id by inspecting the specification data (col. 11, lines 67 and col. 29, lines 1-45).

With respect to claim 6, Kroenke did not explicitly teach, receiving a request to define a view includes receiving a request that specifies the one or more columns as including at least one column from a relational table, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to receive a request to define a view to include receiving a request specifying one or more columns including at least one column from a relational table and to incorporate in Kroenke because such a modification would allow Kroenke's database servers to manage the relational tables defining data types and to present a view of the data in the database to a user of the object types.

With respect to claim 7, reading a first set of data from a plurality of cells from the set of one or more tables (col. 28, lines 44-60 and col. 32, lines 21-27), generating a column object based on the first set of data (col. 28, lines 61-67, col. 29, lines 1-30, and figures 1, 2, and 3) and presenting a second set of data from one or more tables as an object having a column object as an attribute (col. 30, lines 6-65). Kroenke did not explicitly teach, cells of the set of one or more tables and the plurality of cells includes a cell from each of a plurality of rows, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have cells of the one or more tables and a plurality of cells that includes a cell from each of a plurality

of rows and to incorporate in Kroenke because such a modification would allow Kroenke's system to arrange items horizontally within a type of framework with a continuous series of cells running from left to right in a spreadsheet format.

With respect to claim 8, the step of reading data from one or more rows includes reading data from one or more rows of at least one relational table (col.1, lines 33-45).

With respect to claim 9, Kroenke did not explicitly teach, the step of generating a column object includes generating a collection object, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a step that generates a column object that includes the generation of a collection object and to incorporate in Kroenke because such a modification would allow Kroenke's system to generate an object that contains an object type which is what a collection object is defined as being.

With respect to claim 10, Kroenke did not explicitly teach, the step of generating a collection object includes generating the collection object as a list of elements belonging to a single data type, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a step that generates a collection object that includes the generation of a collection object as a list of elements belonging to a single data type and to incorporate in Kroenke because such a modification would enhance Kroenke's system to have each row as a value and each column to identify an object type such as a person or a child attribute of the object type which can be a collection data type and represent one or more children of a person.

With respect to claim 11, Kroenke did not explicitly teach, the step of generating a collection object includes generating the collection object as a nested table, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a step

that generates a collection object that includes the generation of a collection object as a nested table and to incorporate in Kroenke because such a modification would allow Kroenke's system to have data types within an object table enabling the modeling of one to many relationships among the objects.

With respect to claim 12, the step of generating a column object includes generating a column object belonging to a user specified object type (col. 31, lines 39-49).

With respect to claim 13, the step of generating a column object includes generating a column object that is a reference to another object (col. 31, lines 50-65).

With respect to claim 14, Kroenke did not explicitly teach, the step of generating a column object includes generating a column object that is a reference to an object presented by an object view, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a step that generates a column object that includes the generation of a column object that is a reference to an object presented by an object view and to incorporate in Kroenke because such a modification would allow a class to be mapped to a view and to create a new view in the relational database which incorporates the definitions of one or more views.

With respect to claim 15, the step of generating a column object includes generating a column object that is a reference to an object residing in a database (col. 4, lines 55-67 and col. 5, lines 1-7).

With respect to claim 16, this independent claim is rejected for the similar rationale given for claim 1.

Kroenke teaches, a processor (col. 8, lines 11-14), a memory coupled to the processor (col. 8, lines 11-14), a set of one or more tables, the set of one or more tables containing one or more rows (col. 1, lines 32-45).

With respect to claim 17, Kroenke did not explicitly teach, the values from the one or more rows includes values from one or more rows of a relational table that belongs to the set of one or more tables, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the values from the one or more rows include values from one or more rows of a relational table that belongs to the set of one or more tables and to incorporate in Kroenke because such a modification would allow Kroenke's system to have values that define the relations in the one or more rows of a relational table belonging to one or more tables. Kroenke teaches in col. 1, lines 35-36, relational databases consist of one or more two-dimensional tables that contain numerous rows and columns and each row of the relational table defines a record of the data.

With respect to claim 18 is rejected for the similar rationale given for claim 5.

With respect to claim 19, a processor (col. 35, lines 33-34 and col. 40, line 46), a memory coupled to the processor (col. 35, lines 34-36 and col. 40, lines 47-49), one or more databases (col. 1, lines 16-45), a set of one or more tables contained in the one or more databases (col. 1, lines 55-67 and col. 2, lines 1-8), the processor configured to read a first set of data from a plurality of cells from one or more rows from the set of one or more tables (col. 28, lines 44-60 and col. 32, lines 21-27), the processor configured to generate a column object based on the first set of data (col. 28, lines 61-67, col. 29, lines 1-30, and figures 1, 2, and 3), and a processor configured to represent a second set of data from the set of one or more tables as the object that has the column object as an attribute (col. 29, lines 14-30 and col. 30, lines 42-65). Kroenke did not explicitly teach, the plurality of cells includes a cell from each of the plurality of rows, one or more databases, a set of one or more tables contained in the one or more databases directly in response to the other two claim limitations, but it would have been obvious to one having

ordinary skill in the art at the time the invention was made to have a plurality of cells to include a cell from each of the plurality of rows, to have one or more databases, and a set of one or more tables contained in one or more databases because relational databases consist of one or more two-dimensional tables that contain numerous rows and columns and each row of the relational table defines a record of the data. A cell is well known in the art as being the intersection of a row and a column particularly in a spreadsheet with each row and column as being unique so that each cell can be uniquely identified and each cell is displayed as a rectangular space that can hold text, a value, or a formula.

Kroenke did not explicitly teach a processor configured to read data, to generate a column object, and to represent a second set of data, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a processor configured to perform these steps because Kroenke's computer system contains a sequence of program instructions that when executed by the central processing unit cause the performance of the functions of reading the data, generating a column object, and representing a second set of data (col. 35, lines 8-67, col. 36, lines 1-67, col. 37, lines 1-67, and col. 38, lines 1-8).

With respect to claim 20 this independent claim is rejected for the similar rationale given for claim 1. A computer-readable medium is well known in the art as a disk or CD ROM, etc. for containing information that can be interpreted and acted on by a computer.

With respect to claim 21 this dependent claim is rejected for the similar rationale given for claim 2.

With respect to claim 22, this dependent claim is rejected for the similar rationale given for claim 5.

With respect to claim 23, this dependent claim is rejected for the similar rationale given for

claim 6.

With respect to claim 24, this independent claim is rejected for the similar rationale given for claim 7.

With respect to claim 25, this independent claim is rejected for the similar rationale given for claim 7.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chang et al (US 5,924,100) teaches relational database cells.

Hooper et al (US 5,819,282) teaches a database created to store a plurality of data objects, rows, and columns.

Wlaschin et al (US 5,729,730) teaches a database system with a table for storing data with cells.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is (703)308-7064. The examiner can normally be reached Monday through Thursday from 6:30 a.m. to 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black, can be reached on (703)305-9707.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703)308-9051, (for formal communications intended for entry).

Or:

(703)308-5403 (for informal or draft communications, please label

“PROPOSED” or “DRAFT”).

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, Virginia., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (703)308-9600.

E. Colbert

E. Colbert

September 6, 2001

Hosain Alam
HOSAIN T. ALAM
PRIMARY EXAMINER